



**Increase readiness.** The RS1.549S18 1.5U rugged server delivers proven reliability and computing performance in extreme and unpredictable environments — critical for successful execution of combat, sonar and electronic warfare applications across multiple configurations in the TI20 (Technical Insertion 2020) program.

At 18" (44.3 cm) and 25 pounds, the smaller, integrated footprint of the unit fits easily into standard rack slots, including S26-1. With greater weapons system availability, superior cooling and shock/vibe resistance, this 1.5U rugged server stands ready to perform.

**Lives are on the line. Reliability matters.** Warfighters achieve dominance with accurate, real-time information — which requires failsafe computer hardware that works in any condition. That's why all Crystal Group products are engineered and tested to meet or exceed strict MIL-SPEC standards.

Our unsurpassed thermal performance uses custom heatsinking solutions and special air management techniques for the EW platform to perform in a 50°C ambient condition. Likewise, we meticulously fuse the unique GPU and networking capabilities with the latest Intel® Xeon® Scalable processors to deliver secure, near-zero latency at the tactical edge.

**Combat-proven solutions you can trust.** Fielding more than 15,000 servers for the U.S. Navy, Crystal Group solutions have demonstrated unmatched fielded reliability of greater than 99 percent. Key to our consistency is having the full design, development, testing and manufacturing team in-house. Using the latest COTS technologies for ease and speed of upgrades and reconfigurations, we're able to deliver customized solutions that meet the unique needs of any program on time and on budget.

**Industry-leading support.** Crystal Group's expert team and global network provide fast, effective product support around the clock and around the globe. With in-house or onsite technical assistance, industry-leading five-plus-year warranties and exceptional service, you can depend on Crystal Group as a strategic partner, dedicated to your success.

## FEATURES

- **SWFTS-TI20-C04-1 compliant chassis**
- **Rugged 1.5U, 18" rack mounted server**
- **Lightweight aluminum construction – 25 lbs.**
- **256 GB of memory**
- **Easy, front access CMOS battery drawer**
- **5x USB 3.0, VGA, 2x Gigabit LAN, IPMI, Serial**
- **Versatility with up to nine FIPS 140-2 removable 2.5" SSD bays**
- **Intel® Xeon® ES-2648L processors**

*A clear advantage.*

## Specifications

**Chassis**

SWFTS TI20-C04-1 compliant  
 Height: 1.5U, 2.63" (6.67 cm)  
 Width: 16.97" (443.42 cm) EIA-310 rack compliant  
 Depth: 18" (45.72 cm)  
 Weight: 25+/- 0.4 lbs. (11.4 kg)  
 Remote battery tray, CMOS 2032, front access  
 Rear ground stud ¼-20 UNC  
 Decals: Front serial number, customer model number, battery decal ESD warning

**CPU**

Intel® CPU architecture options from Intel embedded long-life roadmap

Two Intel Xeon E5-2648L V4, 1.8/2.5GHZ, 14-core, 9.6GT/S QPI, 2400MHZ DDR4, 35MB, LGA2011 R3, 75W

**Motherboard**

Supermicro®, Dual LGA2011 R3, X10DRW-I with IPMI LAN

**Expansion**

Two or three full height slots; combination is configuration dependent

**Graphics Processing Unit**

Two NVIDIA Quadro P2200, 5GB, 1280 CUDA cores, 4 DP, PCI-E 3.0 X16, FH, PNY VC-QP2200-SB

**Network Card**

Two port, 1GB/10GB/25GB, SFP28 or direct attach, PCI-E 3.0 X8, LP, CHELSIO T6225-SO-CR, Kit-00285

**Memory**

Eight DDR4 REG ECC RDIMM, 2666MHZ, 32GB (256GB)

**Power Supply**

AC 120/240V, 50-60HZ, auto switching

**Storage**

Eight SSD, SATA, 240GB, 2.5" 7mm, 3D-TLC, 3.1W, 2.2PBW, TCG-E SED, Micron® 5200 MAX  
 One SSD, SATA, 256G, 2.5" 7mm, MLC, 8.1W, 0.3PBW, TCG-OPAL SED, read/write header, SMART HRS-M4

**Sound Card**

Sound Blaster Audigy FX, 5.1 channel, 5 3.5MM, PCI-E 1.0 X1, LP, creative

**Blu-Ray**

BD-RW, DVD+/-RW, SATA, INT, ultra slimline, black, tray load, LG BU40N

**Cooling**

Four high speed, high volume fans, Hi/low fan CFM selection switch with lock-out

**TPM Security**

Module, TPM 2.0, horizontal, for Supermicro boards with 20 pin header, Supermicro, Intel Xeon E5 processors, AOM-TPM-9665H-S

**Software Compatibility**

Accepts Windows 10®, Windows Server 2016®, Windows Server 2012®, VMware® or Linux®

**Export Compliance**

ECCN: 5A992C

Classification is dependent on configuration and is subject to change. Please contact your program manager to receive the classification for your product.



Metromatics

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Certification reports for select products are available on [Crystalrugged.com](http://Crystalrugged.com). Crystal Group designs all products to meet or exceed the specifications listed herein. Due to the numerous models and component combinations, some configurations are still being tested. Please contact your Crystal Group program manager for test data on desired requirements.



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